

Strengthening the Engineer Warrior Ethos: Engineer Officer Basic Course and Sapper Leader Course Integration

“Warrior Ethos—summarized in Army training material as a commitment to victory, an emphasis on mission, a refusal to quit, and a commitment to never leave an American behind—will also be emphasized after training is over in everything soldiers do in their regular units.”

*—General Kevin P. Byrnes
Commander, U.S. Army Training and Doctrine Command*

Transformation has been the buzzword for the Army since the turn of the millennium. The 21st century Army has adopted a specific mentality for its leadership so the Army can become a faster, more lethal, and more adaptive fighting force. That mentality is known as Warrior Ethos, a mind-set for every soldier to be first and foremost an infantry soldier with fighting skills to match a tremendous fighting spirit. The new Basic Officer Leader Course, set to begin in the next few years, is an Armywide initiative to instill the Warrior Ethos from the beginning of an officer’s career. But with the technical and diverse role of today’s engineers, the Engineer Regiment is going one step further to merge Warrior Ethos with the modern, high-operational-tempo combat engineer. The U.S. Army Engineer School has started to send to the Sapper Leader Course (SLC) all lieutenants headed to combat engineer units after the basic course. Fueling this initiative is the need for officers who are as combat-ready as possible before arriving at their first unit. There is no better vehicle for this transformation than the SLC.

The SLC mission is to train engineers in the leadership skills, combat engineer and infantry battle drills, and specialized engineer and infantry techniques required for a sapper unit to perform as a member of a combined arms team.



Soldiers take notes during a class at the SLC.

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Embedded in their mission are the course objectives—to enhance technical proficiency, unit cohesion, confidence in self and equipment, and physical and mental toughness—everything the Warrior Ethos is and the engineer leader needs.

In today's contemporary operational environment (COE), every engineer is at the heart of operations to clear the way to victory for our maneuver forces, assuring their mobility. This environment has no battle lines and features smaller-scale force-on-force combat against an enemy who fights from the shadows. The Engineer Regiment has always played a significant role in combat and the SLC builds on that significance with real-world training under combat conditions. All training is current and relevant to operations in the COE alongside our combat arms brethren. On today's nonlinear battlefield, our soldiers need leaders who are more efficient, diverse, agile, and adaptive to rapidly changing situations. The Engineer School has taken that initiative to heart.

The SLC enhances the engineer and infantry skills of leaders in the Engineer Regiment. Instructors accomplish this through an intensive 2-week *general studies phase* that includes physical training, mountaineering, field-expedient demolitions, water-crossing operations, and a class on small arms used throughout the world. Other instruction includes classes on booby traps, field-expedient antennas, medical techniques, and air operations. Two important parts of the general studies phase are the 20-kilometer road march, said to be one of the toughest in the Army, and land navigation. The next 2 weeks are dedicated to the patrolling phase. This phase starts with instruction in hand-to-hand combat and operations order preparation before the class heads to the field for 10 days. Of those 10 days, one is a day of instructor-led missions, and the other is a practice day of student-led missions. The next 8 days are dedicated to a 4-day situational-training exercise and a 4-day field-training exercise. Between the exercises



The general studies phase of the SLC includes a road march.

is a class focused on teaching sappers to clean and prepare small game, enhancing their survival skills.

Since students do not have to be combat engineers to attend the course, the demolitions class starts with the basics of demolition calculations and placement. Sample problems, both on paper and in practical exercises, ensure that everyone has a working knowledge of demolitions. The next 2 days are spent at the demolition range, making field-expedient demolitions from materials that sappers may be limited to in real-world situations. Nontraditional emplacement and use of these charges are emphasized. The demolitions studied include field-expedient claymore mines, platter charges, shaped



Student sappers engage in hand-to-hand combat training.



Sappers practice the jumar ascent, using a mechanical device to climb a rope.

charges, satchel and crater charges, and low-standoff breaching charges that can be used indoors in urban warfare.

Every SLC student becomes proficient in mountain operations. Knots are the first part of instruction and every knot learned is used during mountain operations. Group

conduct solo, buddy, and stretcher rappels to move injured personnel down a cliff or other vertical obstacle. Students learn to construct a one-rope bridge to move gear or personnel across a body of water or large crevasse. The final rappel is made over a 90-foot cliff with full field gear while patrolling at night.



Students learn to cross large water obstacles effectively.

success often depends on properly tying one knot. On the rappelling tower, sappers learn the basics of descending and ascending vertical obstacles. A fall wall is used to teach them to properly belay climbers and to teach them what to do if they fall. Descent techniques include wall and free rappels performed with and without gear, fast rope descents, and the "Aussie" rappel, in which students descend face first. Ascent techniques include the prusik ascent, which uses a knotted rope attached to the rappelling rope, and the jumar ascent, which uses two mechanical devices in tandem. Sappers learn to build an A-frame to move gear or injured personnel up a cliff. They also learn to

Sappers learn to cross water obstacles effectively during the SLC. They also learn the correct use of Zodiac boats and crossing-site reconnaissance as well as other methods for crossing large water obstacles. After sappers receive instruction on water-proofing their gear and constructing poncho rafts, they swim in full gear, pulling their poncho rafts behind them. After the 1.5-kilometer swim across the Lake of the Ozarks Recreational Area, their success or failure at properly constructing the raft is apparent.

To aid sappers in survivability, the SLC covers the most common weapons used by our enemies. To overcome enemy-emplaced obstacles, sappers learn to identify enemy mines. (The SLC instructor has also taught the course to soldiers in Afghanistan.) Each student completes a mine identification lane that includes locating, marking, and identifying ten enemy mines. Sappers also learn to disassemble, assemble, and fire an AK-47 and to identify several types of small- and large-bore weapons used around the world. Firing an AK-47 on full automatic is an opportunity that most soldiers never have.

After the general studies phase of the course, sappers move into the 2-week *patrolling phase*, which focuses on troop-leading procedures, patrolling fundamentals, and applying the knowledge gained in the previous 2 weeks. Students spend 3 days in the classroom learning the principles of patrolling and presenting an operations order. Most participants are from different units, so there are no standard operating procedures at the SLC. Because of this, the operations order must include every step of the mission and state task and purpose, by name, for every individual. Actions on the objective alone usually take an hour to brief. This format is new to most sappers, so extra practice is required to complete the brief in the field successfully, especially after 3 days of no sleep and little food. The amount of sleep sappers get depends on how well everyone works together and how fast they move. If everyone works well together, the class may get 30 minutes of sleep a night. If a mission takes longer than expected, or if there is a break in contact during movement, it is unlikely that anyone gets any sleep. Each student "hits bottom" at some point, but most people have a few hours where they shine. Teamwork is essential to individual success during patrolling.


The evaluation system at the SLC is a combination of points and required training events, some of which are retestable. To graduate, a sapper must earn 700 out of 1,000 points and achieve a "GO" on all required events. An initial "NO-GO" in a required event does not mean immediate dismissal from the course, since there is still training value for everyone, even for students who may not graduate. Sappers who do not earn the required number of points, or who fail a required training event, still receive a certificate of completion. Students have the opportunity to retake written exams, the 20-kilometer road march, and the land navigation course, and successful retests can earn them the right to graduate. The largest attrition rate during the course is during land navigation. Injury or refusal to train are the only ways to be removed from the course. Not everyone can avoid an injury, but everyone should be able to overcome their personal fears and complete all training, especially if they plan to be leaders.

The SLC exposes sappers to technical issues from current operations in Iraq and Afghanistan. Some of these issues are sensitive site exploitation, intelligence gathering, and civil affairs integration. The course also trains students on new obstacles and how to recognize them in the field. One leader who recently deployed to Iraq credits the course's instruction

on improvised explosive device (IED) recognition for helping save his convoy from an attack. Before taking the course, the construction soldier admits, he didn't know what an IED was and probably wouldn't have known how to react. Because of his SLC training, however, his efforts saved the lives of soldiers in his convoy.

The SLC is a leadership course. Although some may mistake it for being just another Ranger program, it's much more focused on learning and instructor interaction to become the best engineer leader possible. The program involves more than just execution and evaluation; it is a detailed training program that doesn't end in the classroom. The SLC provides challenging experiences and demanding training that can tremendously increase leadership proficiency and minimize unit integration time. In today's Army, where a soldier may deploy the day he arrives at a new duty station, soldiers must be as combat-ready as possible. The SLC exposes students to the physical and mental rigors of combat under a controlled, learning-oriented environment. It's like performing on the battlefield without being on the battlefield.

Second lieutenants show up at their units and are expected to perform as the new task force engineer. They are going to tell the maneuver commander what he can and can't do for the combat forces, and the SLC gives the lieutenant the tools and, more importantly, the confidence to do just that. New lieutenants have always been thrown into task force engineer positions, but gone are the days of a 4-month integration and train-up period for deployments. When officers arrive at their units, they're caught up in other mission-essential tasks such as railhead and dock loading and unloading operations and other critical tasks for successful deployment. The SLC builds and intensifies a soldier's core learning, resulting in a more confident and technically competent leader.

The Army is focused on strengthening the Warrior Ethos mentality to better position its leaders for any mission on today's ever-changing battlefield. The Engineer Regiment is leading this change with the SLC and Basic Officer Leader Course integration as the tip of the sword. The Army's future depends on superb leadership, and by supplying today's leaders with tools like the SLC, those leaders can become more mission-ready than ever before. The integration of these two entities may be the key to the future operation of our Regiment as part of a dominating combined arms team. 

Captain Arnold is currently assigned to an Active Component-Reserve Component position supporting the 648th Engineer Combat Battalion (Mechanized), Georgia Army National Guard. When this article was written, he commanded Bravo Company, 554th Engineer Battalion (Engineer Officer Basic Course), Fort Leonard Wood, Missouri.

Second Lieutenant Kennedy, a graduate of the Sapper Leader Course, completed the Engineer Officer Basic Course in March 2004. He has a bachelor's in political science from Kansas State University.